

Abstract of the Disclosure

A lithium sulfur battery including: a cathode that contains sulfur or a sulfur compound as an active material; an anode; a separator interposed between the cathode and the anode; and an organic electrolytic solution that contains a lithium salt, dialkoxypropane having the formula of $(CH_2)_3R_1R_2$, and an organic solvent are provided. The organic electrolytic solution, which contains dialkoxypropane, is less reactive with lithium of the anode and improves the conductivity of lithium ions and the discharging capacity and cycle properties of lithium sulfur batteries.